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| 09/803,889 | 03/13/2001 | Hilary Laing De Leon | | 2982 |

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EXAMINER

MANCHO, RONNIE M

ART UNIT

PAPER NUMBER

3663

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/803,889

Applicant(s)

DE LEON, HILARY LAING

Examiner

Ronnie Mancho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18 and 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because in the abstract, lines 6+, the applicant discloses that the system of the invention does not interface with any of the aircraft flight instruments. On the other hand, as seen in figs. 1a, 2, & 3 at least an aircraft flight instrument, (other accessories, e.g. cockpit voice recorder, LCD for display of flight data used by flight crew; page 10, 4th paragraph) is connected to a controller of the system of the invention. Correction is required. See MPEP § 608.01(b). The applicant is also referred to page 13, paragraphs 3, 4, 5, etc to address the above error.

The applicant is therefore advised to review the whole specification and make the appropriate corrections related to the error mentioned above.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 18, 24-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 18, 21, 24, 25, 27, the applicant discloses "Joining the system to the aircraft power supply and ignition switch without having to connect the system to the aircraft's own corresponding flight instruments". On the other hand, as seen in figs. 1a, 2, & 3, a temperature

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sensor and connecting wires are connected to a controller 20 which controller is connected to accessories. As listed on page 10, paragraph 4 examples of accessories are cockpit voice recorder, LCD for display of flight data used by flight crew. The applicant is also referred to page 13, paragraphs 3, 4, 5, etc.

Therefore, the claim limitation "Joining the system to the aircraft power supply and ignition switch *without having to connect the system to the aircraft's own corresponding flight instruments*" is inconsistent with the disclosure of the invention.

In claim 26, transmitting a desired time interval to the flight data recorder as claimed in the preamble of claim 26 *is not* a method of periodically recording aircraft position and flight data at a certain time interval.

In claim 27, the body of the claim does not teach how "a recording time interval can be automatically varied in-flight depending on the aircraft speed" as indicated in the preamble of the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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5. Claims 18, 19, 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Bateman (6092008).

Regarding claim 18, Bateman discloses a flight data recording system (abstract) comprising:

an onboard flight data recorder unit (col. 4, lines 59-62; col. 5, lines 43-45; col. 7, lines 15-20; fig. 2) and a ground-based data retrieving station 110 (fig. 2, col. 7, lines 65 thru col. 8, lines 1+), wherein said onboard flight data recorder unit is comprised of:

a central processing unit 10 (col. 9, lines 33+; col. 8, lines 33-37; abstract; col. 7, lines 52-55; col. 8, lines 38-56; col. 11, lines 19+); a plurality of sensors (col. 9, 22-25) monitoring the aircraft's condition;

a global position system (GPS) receiver 40 (col. 8, lines 17+);

a non-volatile memory 10 (col. 9, lines 33-40; figs 2&3, col. 11, lines 16+) for recording flight data and a wireless communications transceiver 10 (col. 9, lines 33-57) for retrieving said flight data all contained in a single physical enclosure 10 (figs. 2&3, col. 11, lines 16+; col. 8, lines 33-37). Note that unit 10 of fig. 2 is shown to have many components in fig. 3 !

Regarding claim 19, Bateman discloses the system of claim 18 wherein said onboard flight data recorder unit (col. 4, lines 59-62; col. 5, lines 43-45; col. 7, lines 15-20; fig. 2) is a single piece of equipment containing devices and most of the sensors needed in performing the function of recording the aircraft's location and behavior.

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 21-23, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bateman in view of Hardesty (6005513)

Regarding claim 21, Bateman discloses the system of claim 18 wherein said wireless transceiver 10 communicates with said ground-based data retrieving station 110 (fig. 2, col. 7, lines 65 thru col. 8, lines 1+), wherein said ground-based data retrieving station 110 is comprised of a computer interfaced to a wireless transceiver 10, wherein said transceiver 10 transmits at low-power and have short communications range and said data retrieval is performed on the ground at the end of the flight (col. 9, lines 33-57). On the other hand, Bateman did not mention a general-purpose desktop. However, Hardesty teaches of a general-purpose desktop 10 (fig. 1, abstract; col. 6, lines 30+) for retrieving flight data. Therefore, it would have been obvious to one of ordinary skill in the art of flight data recorders at the time the invention was made to modify the Bateman device as taught by Hardesty for the purpose of retrieving data from a aircraft in a portable guidance system.

Regarding claim 22, Hardesty discloses the data retrieving station of claim 21 wherein said station 10 can also be implemented as a battery-operated portable computing device with a built-in wireless transceiver that can be held by a single human hand, allowing the person operating the retrieving station to approach the aircraft when retrieving data.

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Regarding claim 23, Bateman disclose the system of claim 18 wherein said wireless means of communications (col. 7, lines 7-11) could be of various known types allowing data stored in the flight data recorder to be retrieved. On the other hand, Bateman did not particularly mention underwater communications. However, it is well known according to the FAA standards for all flight recorders to operate underwater. Bateman (col. 3, lines 55) teaches about underwater communications capability in flight recorders even if the aircraft is submerged in water. Therefore, it would have been obvious to modify the Bateman device as taught by Bateman for the purpose of recovering submerged flight recorders.

Regarding claim 26 (as best understood), Bateman discloses the system of claim 21 wherein aircraft position and flight data are periodically recorded (col. 10, lines 23-45; col. 9, lines 57-67) at a certain time interval.

Allowable Subject Matter

8. Claim 20 and 24, 25, 27 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments filed 7-19-04 have been fully considered but some of the argument are not persuasive.

The applicant is arguing that in fig. 3 of the disclosure, the sensors joined to the controller are only those enclosed within the flight recording enclosure (black box), but such is not the

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case. The figure actually shows a connection from a flap position indicator which is not enclosed in the box. As a matter of fact, the applicant has not disclosed how it could be possible in their invention to obtain flap position data without connecting any instruments to the flaps.

In addition, as seen in applicant's figs. 1a, 2, & 3 at least an aircraft flight instrument (other accessories, e.g. cockpit voice recorder, LCD for display of flight data used by flight crew; page 10, 4th paragraph) external to applicant's black box is connected to a controller wherein the controller is located in the black box (i.e. system of the invention).

Therefore, it is believed the rejections are proper and stand.

Communication

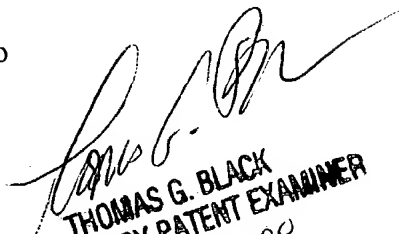
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 703-305-6318. The examiner can normally be reached on Mon-Thurs: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Black can be reached on 703-305-9707. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Ronnie Mancho
Examiner
Art Unit 3661

8/9/04


THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 76 00